

Pressure Measurement And Relief For Microwave-Assisted Chemical Reactions

Abstract of Disclosure

A pressure-sealing, pressure-monitoring closure for non-invasively sealing a reaction vessel to a defined release pressure in microwave-assisted chemistry is disclosed. The closure includes a pressure-resistant, microwave-transparent reaction vessel, one portion of which defines a mouth, a flexible pressure-transmitting releasable cover assembly on the mouth of the vessel, a pressure transducer on the cover and external to the vessel for monitoring the pressure in the vessel as exerted against the flexible cover, and a clamp for urging the vessel, the cover and the transducer together under a defined force so that when the pressure in the vessel exceeds the defined force, the cover can flex and release the pressure from the vessel.

Figures